

SpectraLL Spectra-PT Power Tunable Spectral Calibration Sources

Simple uniform sources of luminance and radiance for high dynamic range test and calibration of imaging and non-imaging devices

Speed and accuracy in a simple design

Spectra-PT sources are designed for flat fielding and calibrating cameras and sensors for radiometric responses from low to high light levels. Spectra-PT yields high fidelity measurements while keeping the user experience simple and affordable with turnkey features and excellent dynamic range. A great all-around uniform source system for simple camera and sensor testing.

Spectralon®, a highly diffuse material inside the sphere, provides stable reflectance and repeatability over the lifetime of the system. The integrating sphere and control electronics are housed in a single enclosure for easy portability, and production ready features such as automation, and easy-to-use software interface with user defined and selectable light levels.

A 13.5 cm integrating sphere with a 5 cm exit port, precision automated variable attenuator, and built in photopic response photodetector allows for continuous adjustability and good dynamic range up to 50,000 cd/m².

The automated VA allows the user to quickly and accurately drive to a preset or selected luminance value. For cameras with wide angle FOV's, Spectra-PT features our WAF (Wide Angle Field Of View) version. Each system comes with a uniformity mapping and National Institute of Standards and Technology (NIST) traceable spectral radiance and luminance calibrations.



Types of test:

- Luminance Responsivity
- Image Validation and Correction
- Uniformity
- Flat Fielding

Ideal for calibrating:

- CCD and CMOS cameras
- Small area remote sensing devices
- Electronic imaging devices
- Medical endoscopes
- · Ambient light sensors
- Security cameras

Specifications and Ordering Information

Model Number:	PT-1000-S	PT-1000-W
Order Number:	AA-01578-001	AA-01578-000

System Performance

Correlated Color Temperature: CCT $2856K \pm 75K \\ Est. \ Luminance \ Range: cd/m^2 \\ Est. \ Luminance \ at Port: \ lux \\ Est. \ Equivalent \ Illuminance \ at Port: \ lux \\ Est. \ Peak \ Spectral \ Radiance: \ \mu W/cm^2-sr-nm \ @1050 \ nm \\ Uniformity: \\ 94\% \\$

Lamp Lifetime: hrs> 500> 500Luminance Attenuator Steps:1.20E+041.20E+04Dynamic Range/Bits/dB - Full Range of System:4.85E+04/15/934.85E+04/15/93

System Components

Sphere Diameter: (ID) 13.5 cm 13.5 cm Exit Port Diameter: 5 cm Dome 5 cm Sphere Coating: Spectralon[®] Spectralon® Inline Baffle 7.62 cm SD-S1, Silicon SD-S1, Silicon Monitor Detector: Quartz Halogen Light Source: Quartz Halogen Photopic & Unfiltered Detector Response: Photopic & Unfiltered System Software: LSS-PT LSS-PT

Port Accessories

Standard Aperture Sizes: 1.27, 2.54, 3.81 and 5.05 cm

System Specifications

Communication:USB 3.0USB 3.0Operating System:Windows 10Windows 10Dimensions: (L x W x H)39 cm x 32 cm x 30 cm 39 cm x 32 cm x 30 cm14 kgWeight: (approximate)14 kg14 kg

Included Calibrations (NIST traceable)

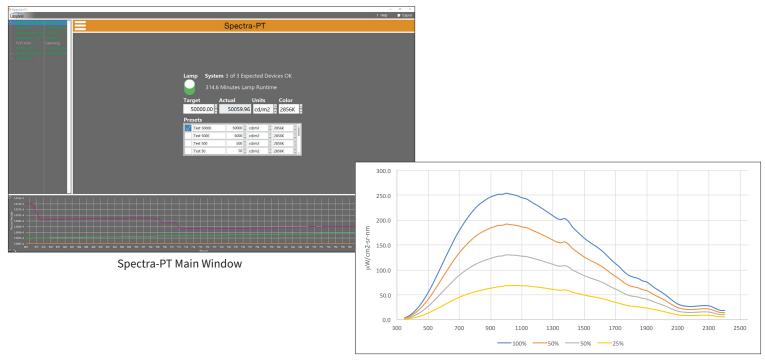
Luminance*: cd/m²
Correlated Color Temp: (factory set) 2856K
Spectral Radiance: (350 - 2400 nm) at max lu

Spatial Uniformity:

*Additional calibrations may be entered by user

cd/m² cd/m² 2856K 2800K

at max luminance at max luminance at max luminance



Example: PT-1000-S Spectral Radiance at 2856K